



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/646,230

08/22/2003

Shao-Chun Chen

14312US02

1388

23446

7590

12/23/2008

MCANDREWS HELD & MALLOY, LTD

500 WEST MADISON STREET

SUITE 3400

CHICAGO, IL 60661

EXAMINER

HERRERA, DIEGO D

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/646,230

Applicant(s)

CHEN, SHAO-CHUN

Examiner

DIEGO HERRERA

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 16, and 22 are rejected on the ground of nonstatutory double patenting over claims 1 and 18 of U. S. Patent No. 7367027 B1 and claims 1, 16, and 26 of U.S. Patent No. 7313791 B1 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Application 10646230	Patent 7367027	Patent 7313791	Common matter
1. A mobile services network comprising:	1. A system for generating efficient and compact	1. A network for updating contents of memory	Underlined areas are

<p><u>a mobile electronic device;</u> <u>a management server; an update package repository;</u> <u>a generator with nodes preprocessor,</u> which generates a package of update information; and wherein generating comprises <u>predicting the contents of locations in the new version of firmware and identifying as nodes corresponding locations in an old version of firmware for the mobile electronic device and a new version of firmware for the mobile electronic device, for which contents of the location in the new version of firmware was not able to be predicted based upon the old</u></p>	<p>update packages for updating contents of <u>memory in an electronic device utilizing source and target images of the contents,</u> the system comprising: <u>at least one processor communicatively coupled to storage containing code executable by the at least one processor,</u> the code comprising: <u>a parser for generating distance files comprising distance information representing location differences between code or objects in the source image and the target image;</u> a bubble generator for <u>generating bubble information from the distance information,</u> the bubble information <u>representing addition and</u></p>	<p>comprising an existing code version in an electronic device, the network comprising: <u>an electronic device including an update environment arranged to first process data representative of shifting of objects within the existing code version to align with locations of corresponding objects in an updated code version,</u> <u>the first process producing a modified existing code version, and to second process the modified existing code version to produce the updated code version;</u> a <u>distribution environment for transferring data to the electronic device;</u> a communication link for linking the electronic</p>	<p>reciting equivalent or identical or conveying same ideas in limitations in different words among the claims.</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

<p><u>version of firmware.</u></p>	<p><u>deletion of memory space within the source image to more closely align the code or objects in the source and target images;</u> a configuration manager for facilitating configuration of memory elements of the electronic device; a bubble layout manager for modifying the source image to look similar to the target image, based upon the bubble information; and <u>a generator for generating at least one update packages package from the modified source image and the target image, for processing in the electronic device to update the memory.</u></p>	<p>device and the distribution environment; and a generation environment for generating the data</p>	
<p>16. <u>A method for generating an update package using an old image and a new image of a firmware for a mobile</u></p>	<p>18. A method for generating efficient and compact update packages for updating contents of memory in an electronic</p>	<p>16. A method for <u>updating contents of memory in an electronic device in an updating network having an electronic device, a</u></p>	

<p><u>electronic device in a mobile services network, the method comprising: converting symbols in the new and old images of the firmware into distance information; determining a list of nodes in the old and new images of the firmware; generating filter information; generating the update package; and outputting the generated update package; wherein determining comprises predicting the contents of locations in the new version of firmware and identifying as nodes corresponding locations in the old image of firmware and the new image of firmware for which contents of the location in the new image</u></p>	<p><u>device, utilizing source and target images of the contents, the method comprising the steps of: identifying files comprising code or objects of the source image; identifying files comprising code or objects of the target image; creating one or more distance files for the source and the target images, the one or more distance files comprising information representing differences of location of the code or objects in the source and target images; generating bubble information using the one or more distance files, the bubble information representative of addition and deletion of memory space within the source image;</u></p>	<p><u>distribution environment, and a generation environment, the method comprising the steps of:</u> (a) <u>reading an original image of the contents of memory of the electronic device;</u> (b) <u>reading a new image of the contents of updated memory for the electronic device;</u> (c) <u>comparing a location of an object in the original image of the contents of and a location of a corresponding object in the new image of the contents, to produce a bubble representative of shift information;</u> (d) <u>applying the bubble to the original image of the contents to align the object in the original image of the contents with the</u></p>	
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p><u>of firmware was not able to be predicted based upon the old image of firmware; and wherein generating filter information comprises capturing information regarding addresses where the contents of the location in the new image of firmware was able to be predicted.</u></p>	<p><u>applying the bubble information to the source image to create a modified source image in which the code or objects more closely align with corresponding code or objects in the target image;</u> <u>generating an update package using the modified source image and the target image; and</u> <u>outputting the update package and the bubble information to the electronic device for processing to update the memory.</u></p>	<p><u>corresponding object in the new image of the contents:</u> (e) <u>repeating (c) and (d) until all objects of the original image of the contents and the new image of the contents have been compared;</u> (f) <u>saving the original image of the contents with the applied bubbles as a modified original image of the contents;</u> (g) <u>generating an update package comprising information representing differences between the new image of the contents and the modified original image of the contents, and the applied bubbles;</u> (h) <u>transferring the update package to the distribution environment;</u> (i) <u>downloading the update package from the</u></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p><u>distribution environment to the electronic device; and</u></p> <p><u>(j) updating the original image of the contents in the electronic device to the new image of the contents, using the update package.</u></p>	
<p>22. A method for generating an update package using an old image and a new image of a firmware for a mobile electronic device in a mobile services network, the method comprising the steps of:</p> <p><u>converting symbols in the new and old images of the firmware into distance information;</u></p> <p><u>determining a list of nodes in the old and new images of the firmware;</u></p> <p><u>generating information for a first filter; creating a partially modified old</u></p>		<p>25. A method for updating contents of memory in an electronic device, the method comprising the steps of:</p> <p>reading an original image of the contents of memory of the electronic device;</p> <p>reading a new image of the contents of updated memory for the electronic device;</p> <p><u>comparing a location of an object in the original image and a location of a corresponding object in the new image, to produce a bubble representative of shift information;</u></p>	

<p><u>image of the firmware</u> <u>utilizing the first filter;</u> <u>generating information for</u> <u>a second filter;</u> <u>creating a modified old</u> <u>image of the firmware</u> <u>utilizing the second filter</u> <u>and the</u> <u>partially modified old</u> <u>image of the firmware;</u> <u>generating the update</u> <u>package; outputting the</u> <u>generated update</u> <u>package; and</u> <u>wherein determining</u> <u>comprises predicting the</u> <u>contents of locations in</u> <u>the new version of</u> <u>firmware and identifying</u> <u>as nodes corresponding</u> <u>locations in the old image</u> <u>of</u> <u>firmware and the new</u> <u>image of firmware for</u> <u>which contents of the</u> <u>location in the new image</u></p>	<p><u>applying the bubble to the</u> <u>original image to align the</u> <u>object in the original image</u> <u>with the corresponding</u> <u>object in the new image;</u> <u>repeating the comparing</u> <u>and applying until all</u> <u>objects of the original</u> <u>image and the new image</u> <u>have been compared and</u> <u>all bubbles applied, to</u> <u>produce a modified original</u> <u>image;</u> <u>generating an update</u> <u>package comprising</u> <u>information representing</u> <u>differences</u> <u>between the new image</u> <u>and the modified original</u> <u>image, and the applied</u> <u>bubbles; transferring the</u> <u>update package to a</u> <u>distribution environment;</u> <u>downloading the update</u> <u>package from the</u> <u>distribution environment to</u></p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<u>of firmware was not able to be predicted based upon the old image of firmware.</u>		<u>the electronic device; and updating the original image in the electronic device to the new image, using the update package.</u>	
---------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------	--

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 16 and 22 are drawn to a "method" *per se*, as recited in the preamble, are not tied to another statutory class (such as a particular apparatus) and as such are non-statutory subject matter. See MPEP § 2106.IV.B.

Based on Supreme Court precedent and recent Federal Circuit decisions, a § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101 and should be rejected as being directed to a non-statutory subject matter.

An example of a method claim that would not qualify as statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Claims 16 and 22 comprise elements (such as generating, determining, and outputting) that show how a process is performed, but they do not show what physical element performs the process (mobile terminal, server, memory, base station, MSC, etcetera...). Thus, claims 16 and 22 are not tied to another statutory class (such as a particular apparatus).

Response to Amendment

Claims 1, 16, and 22 have been amended.

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Peleg (US 6546552 B1).

Regarding claim 1. Criss et al. discloses a mobile services network (abstract fig. 1 (whole), 12 (elements 296, 297, 298), wherein Criss et al. shows a mobile service network) comprising:

a mobile electronic device (mobile terminal fig. 1 element 36, Criss shows mobile devices);

an update package repository (§§: 13, Criss teaches FTP server sending update package to mobile terminals, hence, update package repository);

Management server (§§:52, 55, 60, 61, Criss teaches administrator, host computer, and FTP server, hence, management server),

generator with nodes preprocessor, which generates a package of update information (§§: 13, 16, Criss et al. teaches host computer providing wireless updates, schedule table and other activities, disperse through base stations); and

wherein generating comprises predicting the contents of locations in the new version of firmware and identifying as nodes corresponding locations in an old version of firmware for the mobile electronic device (fig. 1, 5, 7; §§: 52, 54-57, 74; Criss et al. teaches the update packages either requested by user of mobile device or by the mobile device is able to determine, by information given by administrator, what fields it needs on the update package and whether fields need to be deleted, added or modified, hence, Nodes are predicted and determined at mobile terminals memory and also at

comparison made with new firmware as to identifiers showing differences between old version and new is presented at the header of packet in a compressed form) and a new version of firmware for the mobile electronic device (§: 52, 54-57, Criss et al. teaches new version of firmware for mobile electronic device is available when it is determined that mobile electronic device needs the updated new version of firmware), for which contents of the location in the new version of firmware was not predicted based upon the old version of firmware (§: 74, 75, Criss et al. teaches information concerning differences in address of data packets that need to be updated through new version firmware package in a compress form included in the header of package, hence, "prediction" or, in other words, address stack identifier are presented in the header in compress form, since these locations are new they are not based upon the old version of firmware, furthermore, the location of contents in new version of firmware would be different that of the old version of firmware, hence, new firmware and it would not be predicted by old version of firmware).

Consider claim 2. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor generates update packages by comparing an old version and a new version of firmware (Criss et al. teaches comparison according to predetermined criteria to updating being appropriate, paragraph [0016]-[0017], [0051], [0074]).

Consider claim 3. The network according to claim 2, Criss et al. discloses wherein the update packages are populated into the update package repository (fig. 5, 12-14, paragraph [0101], [0103], Criss et al. teaches where the files are stored the path

taken can be stored in the host computer or FTP as to where the files names are located).

Consider claim 4. The network according to claim 2, Criss et al. discloses wherein the generated update packages incorporate filter information (paragraph [0017], [0016], [0051]; Criss et al. teaches that system compares version of operating system and then sends what the mobile needs on update packages, hence, filtering the information).

Consider claim 5. The network according to claim 2, Criss et al. discloses wherein the generated update packages incorporate node information (fig. 5, 13; paragraph [0101], [0103], Criss et al. discloses teaches that the mobile determines that the data and file names and fields that are to be downloaded to the mobile is different from what the mobile currently has, hence, the node information is included in the update packages).

Consider claim 6. The network according to claim 1, Criss et al. discloses wherein the management server and the update package repository are communicatively coupled (fig. 1, abstract, paragraph [0047], Criss et al. teaches management server or host is hardwired communicatively with FTP server).

Consider claim 7. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor and the update package repository are communicatively coupled (fig. 1, 12, paragraph [0100], Criss et al. teaches that the computer host and the FTP server are communicatively connected by the system backbone).

Consider claim 8. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor is located at a remote location from the update package repository (fig. 1, 5a-5d, 12, paragraph [0099]-[0100], Criss et al. teaches that host and FTP server and base stations are separate from each other, Host interacts with mobile through the base station determining update package necessitated by mobile, FTP server contains update packages).

Consider claim 9. The network according to claim 1, Criss et al. discloses wherein the mobile electronic device comprises:

a non-volatile memory (EEPROM paragraph [0054], Criss et al. teaches EEPROM in mobile terminal, which is to say non-volatile memory);

a random access memory (RAM paragraph [0063], [0062], [0064], fig. 5a-5d, Criss et al. teaches type of file being assign to the package of update to mobile device hence the ability that the mobile device has Random Access Memory); and

security services (abstract, ¶: 99; Criss et al. teaches system for transmitting securely, WAN system have protocols that adhere to having at least one set of security services or parameters).

Consider claim 10. The network according to claim 9, Criss et al. wherein the non-volatile memory comprises: an update agent; a firmware and real-time operating system; a download agent; and a boot initialization (paragraph [0054], [0057], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

Consider claim 11. The network according to claim 10, Criss et al. discloses wherein the non-volatile memory further comprises an operating system layer (BIOS paragraph [0053]-[0054], Criss et al. teaches basic-input-output-system updates).

Consider claim 12. The network according to claim 10, Criss et al. discloses wherein the non-volatile memory further comprises an end-user-related data and content unit (paragraph [0054], [0057], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

Consider claim 13. The network according to claim 10, Criss et al. disclose wherein the mobile electronic device executes an update process according to the following:

downloading an update package from the update package repository (§: 52); rebooting (§: 54, 57); executing the boot initialization (§: 54, 57); determining whether an update process is needed (paragraph [0016]-[0017], [0051], [0074]-[0075]); and invoking the update agent (paragraph [0054], [0057], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

Consider claim 14. The network according to claim 13, Criss et al. discloses wherein the mobile electronic device determines the need for an update process based on status information (paragraph [0016]-[0017], [0051], [0074]-[0075]).

Consider claim 15. The network according to claim 13, wherein the mobile electronic device invokes the update agent to execute the update process if it is determined an update process is needed (paragraph [0054], [0057], [0074]-[0075], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criss et al., and in view of Peleg (US patent 6546552).

Regarding claim 16. Criss et al. discloses a method for generating an update package using an old image and a new image of a firmware in a mobile services

network (¶¶: 51, 52, 54, 57, Criss et al. teaches firmware updates related to current version on mobile device), the method comprising:

However, Criss et al. does not disclose converting symbols in the new and old images of the firmware into distance information; determining a list of nodes in the old and new images of the firmware; nonetheless, the examiner maintains that these elements are known in the art at the time the invention of Criss et al. was made and taught by Peleg (see Peleg, abstract, col. 10 lines: 16—col. 14 lines: 32, inter alia, Peleg teaches scanning old program for distinct label marks as well as the new program, see fig. 2a-b, wherein references entry meaning address location, hence, creating distance information using old and new program to generate changes, deletions, and replacing of data). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include new and old programs of firmware into distance information, determining a list of nodes in the old and new firmware as taught by Peleg, for the purposes of creating an efficient way of incremental software updates and version control (col. 2 lines: 17-23).

generating filter information (¶¶: 101, 103, 109, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient);

generating the update package (Criss et al. teaches new version of firmware either by user of system see Criss et al. reference); and

outputting the generated update package (Criss et al. teaches package being sent, mobile devices equipped with transceivers, see figures);

wherein determining comprises predicting the contents of locations in the new version of firmware and identifying as nodes corresponding locations in the old image of firmware (fig. 1, 5, 7; ¶: 52, 54-57, 74; Criss et al. teaches the update packages either requested by user of mobile device or by the mobile device is able to determine, by information given by administrator, what fields it needs on the update package and whether fields need to be deleted, added or modified, hence, Nodes are predicted and determined at mobile terminals memory and also at comparison made with new firmware as to identifiers showing differences between old version and new is presented at the header of packet in a compressed form) and the new image of firmware (¶: 52, 54-57, Criss et al. teaches new version of firmware for mobile electronic device is available when it is determined that mobile electronic device needs the updated new version of firmware) for which contents of the location in the new image of firmware was not able to be predicted based upon the old image of firmware (¶: 74, 75, Criss et al. teaches information concerning differences in address of data packets that need to be updated through new version firmware package in a compress form included in the header of package, hence, "prediction" or, in other words, address stack identifier are presented in the header in compress form, since these locations are new they are not based upon the old version of firmware, furthermore, the location of contents in new version of firmware would be different that of the old version of firmware, hence, new firmware and it would not be predicted by old version of firmware); and

However, Criss et al. does not disclose wherein generating filter information comprises capturing information regarding addresses where the contents of the location in the new image of firmware was able to be predicted; nonetheless, the examiner maintains that these elements are known in the art at the time the invention of Criss et al. was made and taught by Peleg (see Peleg, abstract, col. 10 lines: 16—col. 14 lines: 32, inter alia, Peleg teaches scanning old program for distinct label marks as well as the new program, see fig. 2a-b, wherein references entry meaning address location, hence, creating distance information using old and new program to generate changes, deletions, and replacing of data). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include new and old programs of firmware into distance information, determining a list of nodes in the old and new firmware as taught by Peleg, for the purposes of creating an efficient way of incremental software updates and version control (col. 2 lines: 17-23).

Regarding claim 22. Criss et al. discloses a method for generating an update package using an old image and a new image of a firmware for a mobile electronic device in a mobile services network, the method comprising the steps of:

However, Criss et al. does not disclose converting symbols in the new and old images of the firmware into distance information; determining a list of nodes in the old and new images of the firmware; nonetheless, the examiner maintains that these elements are known in the art at the time the invention of Criss et al. was made and taught by Peleg (see Peleg, abstract, col. 10 lines: 16—col. 14 lines: 32, inter alia, Peleg teaches scanning old program for distinct label marks as well as the new program, see fig. 2a-b,

wherein references entry meaning address location, hence, creating distance information using old and new program to generate changes, deletions, and replacing of data). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include new and old programs of firmware into distance information, determining a list of nodes in the old and new firmware as taught by Peleg, for the purposes of creating an efficient way of incremental software updates and version control (col. 2 lines: 17-23).

generating information for a first filter (¶: 101, 103, 109, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient); creating a partially modified old image of the firmware utilizing the first filter; generating information for a second filter (¶: 101, 103, 109, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient); creating a modified old image of the firmware utilizing the second filter and the partially modified old image of the firmware; generating the update package; outputting the generated update package; and wherein determining comprises predicting the contents of locations in the new version of firmware and identifying as nodes corresponding locations in the old image of

firmware (fig. 1, 5, 7; ¶: 52, 54-57, 74; Criss et al. teaches the update packages either requested by user of mobile device or by the mobile device is able to determine, by information given by administrator, what fields it needs on the update package and whether fields need to be deleted, added or modified, hence, Nodes are predicted and determined at mobile terminals memory and also at comparison made with new firmware as to identifiers showing differences between old version and new is presented at the header of packet in a compressed form) and the new image of firmware (¶: 52, 54-57, Criss et al. teaches new version of firmware for mobile electronic device is available when it is determined that mobile electronic device needs the updated new version of firmware) for which contents of the location in the new image of firmware was not able to be predicted based upon the old image of firmware(¶: 74, 75, Criss et al. teaches information concerning differences in address of data packets that need to be updated through new version firmware package in a compress form included in the header of package, hence, "prediction" or, in other words, address stack identifier are presented in the header in compress form, since these locations are new they are not based upon the old version of firmware, furthermore, the location of contents in new version of firmware would be different that of the old version of firmware, hence, new firmware and it would not be predicted by old version of firmware).

Consider claim 17. The method according to claim 16 wherein has similar limitation as claim 16 (see claim 16 for rejection).

Consider claim 18. The method according to claim 16 wherein the determining comprises similar limitation as claim 16 (see claim 16 for rejection).

Consider claim 19. The method according to claim 16, Criss et al. discloses wherein a pre-predict phase is performed to generate filter information, and wherein the pre-predict phase comprises:

identifying instructions using instruction prediction (§§: 51-52, 77, Criss et al. teaches identifying instruction when comparing old version of firmware);

fixing address locations and producing filter information (§§: 101, 103, 109, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient); and

fixing data and producing filter information using block hunting (§§: 69, 77, 110-111, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient, block hunting is well known in the art).

Consider claim 20. The method according to claim 16 wherein the filter information comprises node location (§§: 74, 75, Criss et al. teaches information concerning differences in address of data packets that need to be updated through new version firmware package in a compress form included in the header of package, hence, "prediction" or, in other words, address stack identifier are presented in the header in compress form, since these locations are new they are not based upon the

old version of firmware, furthermore, the location of contents in new version of firmware would be different that of the old version of firmware, hence, new firmware and it would not be predicted by old version of firmware) and address range information where prediction was successful (Criss et al. teaches comparison according to predetermined criteria to updating being appropriate, paragraph [0016]-[0017], [0051], [0074], hence, when data is compared between new and old versions firmware are different then prediction was not successful when the address location is the same when comparing between the two then it was successful prediction of node locations).

Consider claim 21. The method according to claim 16, Criss et al. discloses wherein a pre-predict phase is performed to generate filter information, and wherein the pre-predict phase is followed by a predict phase, wherein the predict phase comprises: performing instruction prediction utilizing the generated filter information (§§: 101, 103, 109, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient); and executing block hunting utilizing the generated filter information (§§: 101, 103, 69, 109, 110-111, Criss et al. teaches file names and packages that replace or delete or modified firmware wherein reference of Criss further teaches comparing old and new firmware creating and determining information to be modified, deletion and replacing; hence, having exact location address and filter information to be more efficient, block hunting is well known in the art).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEGO HERRERA whose telephone number is (571)272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/

Examiner, Art Unit 2617

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617